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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
 Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION  
 OFFICE OF THE SECRETARY

In the Matter of

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Allocation of Frequencies in the  
 1390-1393 MHz and 1429-1432 MHz Bands  
 to the Non-Voice, Non-Geostationary Mobile  
 Satellite Service

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To: The Commission

**PETITION FOR RULEMAKING**

The Satellite Industry Association ("SIA"),<sup>1</sup> pursuant to Section 1.401 of the Commission's Rules, hereby respectfully petitions the Commission to commence a rulemaking proceeding to amend the U.S. Table of Allocations, at Section 2.106 of the Commission's Rules, to allocate a total of 6 MHz of spectrum in the 1390-1393 MHz and 1429-1432 MHz bands, on a primary basis, for the non-voice, non-geostationary mobile-satellite service ("NVNG MSS") feeder link operations. In support whereof, the following is submitted:

**PRELIMINARY STATEMENT**

At the recently concluded International Telecommunication Union ("ITU") World Radio Conference ("WRC-2000"), the U.S. was successful in advancing its proposal to

<sup>1</sup> SIA is a national trade association representing the leading U.S. satellite manufacturers, service providers, and launch service companies. SIA serves as an advocate for the U.S. commercial satellite industry on regulatory and policy issues common to its members. With member companies providing a broad range of manufactured products and services, SIA represents the unified voice of the U.S. commercial satellite industry. SIA's members include: Boeing Commercial Space Company; COMSAT Corporation; Ellipso Inc.; Final Analysis Inc.; GE American Communications, Inc.; Globalstar, L.P.; Hughes Electronics Corp.; Lockheed Martin Corp.; Loral Space & Communications Ltd.; Motient Corp.; Motorola Inc.; Orbital Sciences Corporation; PanAmSat Corporation; Teledesic Corporation; TRW Inc.; and Williams Vyvx Services.

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obtain dedicated International feeder link allocations for the NVNG MSS industry. At WRC-2000, the U.S. government took the lead, building on years of effort and successful technical sharing studies, and succeeded for the first time in getting the majority of the world to support the U.S. proposal to place on the agenda for the very next WRC (in 2003) allocation of the 1390-1393 MHz and 1429-1432 MHz bands on a global basis for NVNG MSS feeder links. A domestic allocation of these same frequencies is essential to ensure that the United States achieves its international objective to obtain critical global allocations of dedicated NVNG MSS feeder link spectrum.

The Commission has long acknowledged that each NVNG MSS system requires dedicated feeder link spectrum, on a global basis, for both uplink and downlink communications.<sup>2</sup> Despite the critical need for dedicated feeder links, insufficient unencumbered spectrum is currently allocated, on an international or domestic basis, to NVNG MSS feeder link operations. In the international context, the 1390-1393 MHz and 1429-1432 MHz bands have been identified as the only frequencies suitable and available for global allocation for NVNG MSS feeder link operations. This particular spectrum is suitable not only because of its propagation characteristics but, perhaps more importantly, because of the potential for a global allocation. These frequencies are not heavily occupied in other countries and regions by other services that are highly sensitive to potential interference.

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<sup>2</sup> See, e.g., Amendment of Part 25 of the Commission's Rules to Establish Rules and Policies Pertaining to the Second Processing Round of the Non-Voice, Non-Geostationary Mobile Satellite Service, *Report and Order*, 13 FCC Rcd 9111 (1997), ¶ 48.

Over the past several years, the NVNG MSS industry and the U.S. government have worked very hard together to try to obtain a global allocation in these frequencies for NVNG MSS. At WRC-2000, the U.S. delegation succeeded in having its proposal to allocate the 1390-1393 MHz and 1429-1432 MHz band on a global basis for NVNG MSS feeder links placed on the agenda for WRC-2003. The WRC-03 Agenda was subsequently approved by the ITU Council last month, and the allocation of 1429-1432 MHz band for NVNG MSS is on the Agenda.

In light of these developments, the Commission should act now to demonstrate incontrovertible support for the position advocated by the U.S. government at WRC-2000. Indeed, such action by the Commission is necessary to avoid confusion in the global arena.

Although the Commission previously has informally acknowledged the interests of the NVNG MSS industry in this spectrum,<sup>3</sup> the recent domestic allocation in the 1429-1432 MHz band to WMTS appears contradictory and may significantly adversely impact any chance of success in obtaining the necessary NVNG MSS global allocation at WRC-2003. Additionally, because the Commission has indicated its intent to consider other requests for allocation in these same frequencies,<sup>4</sup> it is critical that the requirements of the NVNG MSS industry for a domestic, as well as an international, allocation for feeder link spectrum in these particular bands now receive full and due consideration.

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<sup>3</sup> See Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service, *Notice of Proposed Rulemaking*, 14 FCC Rcd 16719 (1999) ("*WMTS NPRM*"), ¶ 14 and n.20.

<sup>4</sup> In the *WMTS Order*, at n.60, the Commission stated that it would open a "future comprehensive proceeding to allocate the remaining government transfer spectrum in the 1390-1400 MHz and 1427-1435 MHz bands."

### **THE NVNG MSS INDUSTRY HAS A CRITICAL NEED FOR ADDITIONAL FEEDER LINK SPECTRUM**

Although NVNG MSS systems utilize a relatively small amount of spectrum overall, there is far from enough spectrum in the bands allocated internationally and in the U.S. to NVNG MSS to accommodate all of the licensees' current requirements. The spectrum that has been allocated is heavily utilized by other incumbent users and is not suitable for feeder link operations on a global basis due to coordination constraints imposed by other, non-U.S., satellite systems. Most importantly, none of the NVNG MSS second round licensees has been assigned any dedicated downlink feeder link spectrum, which forces them to share downlink feeder spectrum with other licensees.

The insufficient allocation of spectrum has required the licensees to employ extraordinary measures, including careful coordination among systems, the development of innovative and technically complex frequency sharing techniques, and even reliance upon future international allocations for NVNG MSS. Additional capacity is required and can only come from making additional spectrum available.

The NVNG MSS industry's need for additional spectrum will become increasingly acute as more NVNG MSS systems become operational and their traffic loads increase. Without additional feeder link spectrum, the NVNG MSS industry's ability to provide its highly economical commercial data services to the public in urban as well as rural areas will be seriously constrained.

### **AN ALLOCATION TO NVNG MSS IS IN THE PUBLIC INTEREST**

NVNG MSS telecommunications systems are uniquely suited to the provision of low-cost, near real time, high quality data information services to a large segment of the global population. These services include personal and business messaging services,

such as paging and e-mail, voice mail, file transfers, mobile asset management and tracking, remote monitoring and control, data acquisition, environmental monitoring, and disaster communications.

NVNG MSS systems provide global coverage utilizing smaller satellites in lower orbits and less complex, less costly technology elements both in space and on the ground. As a result, NVNG MSS systems are extremely economical to build, launch, operate, communicate with, and maintain.

The low-cost global reach of NVNG MSS systems addresses many critical service needs not currently met by other technologies. Ground terminals can be equipped with global positioning systems ("GPS") receivers to provide quick, accurate low-cost positioning information for all types of cargo shipping containers, rail cars, barges and trucks. Terminals also can be equipped with microprocessors for data monitoring and control. With these terminals, users can monitor crop conditions and feed supplies on large farms, climate conditions at weather stations, water quality conditions, utility usage, consumable supplies in vending machines and copy machines, point-of-sale reports from retail stores, and a wide variety of inventory management data. NVNG MSS telecommunications systems enable low-cost access to such services as e-mail, messaging, remote metering, and asset tracking by customers located in rural and vast, thinly populated areas that are currently underserved, or served only at high cost, by existing or planned wireline and cellular communications systems. NVNG MSS systems can easily provide service to rural and underserved areas. The Commission should facilitate the development of these services in rural and

underserved areas by making sufficient resources available for NVNG MSS feeder links.

Moreover, the U.S. government and the U.S. satellite industry have dedicated substantial resources over the last four years to obtaining a global allocation of this spectrum for the NVNG MSS. No available alternative spectrum has been identified for allocation to the NVNG MSS industry to meet its critical need for additional feeder link spectrum -- both to achieve dedicated feeder link spectrum and to relieve the congestion caused by operating feeder links in the service link spectrum as is currently required.

Clearly, the public's interest in the broad range of economical and widely geographically available services offered by NVNG MSS will be best served by the Commission demonstrating its commitment to the future viability of this service with a domestic allocation of the frequencies it has been advocating should be allocated to this service on a global basis.

### **CONCLUSION**

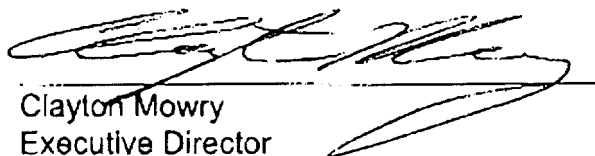
As discussed above, at WRC-2000, the U.S. delegation obtained broad support for its proposal to consider at WRC-2003 the 1390-1393 MHz and 1429-1432 MHz bands for allocation on a global basis to NVNG MSS services for feeder link uplinks and downlinks, respectively. The widespread support among foreign administrations to give their highest priority agreement to the inclusion of the NVNG MSS feeder link allocation on the WRC-2003 agenda reflects the high level commitment made by the U.S. government to secure a global allocation in this band for critically needed NVNG MSS feeder downlink operations.

The NVNG MSS industry has documented and demonstrated its need for this spectrum, and the U.S. government has strongly promoted its allocation to NVNG MSS on a global basis. An international allocation for NVNG MSS feeder link operations, after years of effort and technical studies and WRC negotiations, is now attainable.

For the reasons stated above, SIA respectfully requests the Commission to initiate a proceeding to amend the Table of Allocations at Section 2.106 of its Rules to allocate a total of 6 MHz of spectrum in the 1390-1393 MHz and 1429-1432 MHz bands on a primary basis for NVNG MSS feeder link operations.

Respectfully submitted,

THE SATELLITE INDUSTRY ASSOCIATION



Clayton Mowry  
Executive Director

Michael Fitch  
Chair

The Satellite Industry Association  
225 Reinekers Lane, Suite 600  
Alexandria, VA 22314

(703) 549-8697

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